

Inventors: DENNIS, Jack et al.  
Serial No. 09/833,578

PATENT APPLICATION  
Navy Case 84,886

**In the Claims:**

1-45. (Canceled)

46. (New) A data processing apparatus comprising:

- a first processing element;
- a forwarding storage element; and
- a second processing element,

wherein said first processing element is operable to send first data to a resource and to send second data to said forwarding storage element,

wherein the first data corresponds to original data,

wherein the second data corresponds to the original data,

wherein said second processing element is operable to attempt to access the first data in the resource,

wherein said second processing element is operable to attempt to access the second data in said forwarding storage element, and

wherein when said second processing element accesses the first data in the resource and accesses the second data in said forwarding storage element, and when it is determined that the first data in the resource and the second data in said forwarding storage element are not the same, said second processing element uses the second data from said forwarding storage element.

47. (New) The data processing apparatus of claim 46, wherein said first processing element includes an update-transmit element operable to provide a signal indicating that said first processing element is processing an instruction that utilizes the resource.

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48. (New) The data processing apparatus of claim 46, wherein said first processing element includes an update-transmit element operable to provide a signal indicating that said first processing element has finished processing an instruction that utilizes the resource.

49. (New) The data processing apparatus of claim 46, wherein said forwarding storage element comprises a first-in first-out storage element.

50. (New) The data processing apparatus of claim 46, wherein said forwarding storage element is operable to store data elements in a queue.

51. (New) A data processing method comprising:

- sending first data, which corresponds to original data, from a first processing element to a resource;

- sending second data, which corresponds to the original data, from the first processing element to a forwarding storage element;

- accessing, via a second processing element, the first data in the resource;

- accessing, via the second processing element, the second data in the forwarding storage element;

- determining whether the first data in the resource and the second data in the forwarding storage element are not the same; and

- using one of the first data in the resource and the second data in the forwarding storage element when said determining determines that the first data in the resource and the second data in the forwarding storage element are the same and using the second data from the forwarding storage element when said determining determines that the first data in the resource and the second data in the forwarding storage element are not the same.

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52. (New) The data processing method of claim 51, further comprising providing, to the second processing element, a signal indicating that the first processing element is processing an instruction that utilizes the resource.

53. (New) The data processing method of claim 51, further comprising providing, to the second processing element, a signal indicating that the first processing element has finished processing an instruction that utilizes the resource.